

1. Choose the **smallest** set of Complex numbers that the number below belongs to.

$$\sqrt{\frac{169}{0}} + \sqrt{60}i$$

- A. Irrational
  - B. Not a Complex Number
  - C. Pure Imaginary
  - D. Rational
  - E. Nonreal Complex
- 

2. Simplify the expression below and choose the interval the simplification is contained within.

$$8 - 1 \div 20 * 5 - (4 * 13)$$

- A.  $[59.76, 60.65]$
  - B.  $[48.71, 49.16]$
  - C.  $[-44.2, -43.15]$
  - D.  $[-44.61, -44.11]$
  - E. None of the above
- 

3. Simplify the expression below into the form  $a + bi$ . Then, choose the intervals that  $a$  and  $b$  belong to.

$$(-6 - 2i)(8 - 9i)$$

- A.  $a \in [-70, -63]$  and  $b \in [38, 47]$
- B.  $a \in [-51, -47]$  and  $b \in [17, 20]$
- C.  $a \in [-33, -26]$  and  $b \in [-77, -66]$
- D.  $a \in [-70, -63]$  and  $b \in [-43, -36]$
- E.  $a \in [-33, -26]$  and  $b \in [68, 77]$

- 
4. Simplify the expression below and choose the interval the simplification is contained within.

$$15 - 11^2 + 3 \div 10 * 7 \div 12$$

- A.  $[135.9, 136.06]$
- B.  $[-105.89, -105.76]$
- C.  $[-106.13, -105.98]$
- D.  $[136.12, 136.33]$
- E. None of the above

- 
5. Choose the **smallest** set of Complex numbers that the number below belongs to.

$$\sqrt{\frac{0}{484}} + \sqrt{10}i$$

- A. Rational
- B. Not a Complex Number
- C. Nonreal Complex
- D. Irrational
- E. Pure Imaginary

- 
6. Simplify the expression below into the form  $a + bi$ . Then, choose the intervals that  $a$  and  $b$  belong to.

$$\frac{63 + 33i}{8 - 5i}$$

- A.  $a \in [7.45, 7.55]$  and  $b \in [-1, 0]$
- B.  $a \in [3.7, 4.4]$  and  $b \in [5.5, 7.5]$
- C.  $a \in [3.7, 4.4]$  and  $b \in [578.5, 580.5]$

- D.  $a \in [7.85, 7.95]$  and  $b \in [-7, -6]$   
E.  $a \in [338.9, 339.05]$  and  $b \in [5.5, 7.5]$
- 

7. Simplify the expression below into the form  $a + bi$ . Then, choose the intervals that  $a$  and  $b$  belong to.

$$(2 - 5i)(-9 + 3i)$$

- A.  $a \in [-5, 4]$  and  $b \in [-56, -44]$   
B.  $a \in [-22, -15]$  and  $b \in [-17, -13]$   
C.  $a \in [-35, -31]$  and  $b \in [38, 47]$   
D.  $a \in [-5, 4]$  and  $b \in [49, 52]$   
E.  $a \in [-35, -31]$  and  $b \in [-46, -31]$
- 

8. Choose the **smallest** set of Real numbers that the number below belongs to.

$$-\sqrt{\frac{15}{0}}$$

- A. Not a Real number  
B. Irrational  
C. Rational  
D. Integer  
E. Whole
- 

9. Simplify the expression below into the form  $a + bi$ . Then, choose the intervals that  $a$  and  $b$  belong to.

$$\frac{-54 + 88i}{7 + 5i}$$

- A.  $a \in [0, 1]$  and  $b \in [884.5, 886.5]$

- B.  $a \in [-9, -7]$  and  $b \in [16.5, 18]$
  - C.  $a \in [-12, -10.5]$  and  $b \in [4, 6]$
  - D.  $a \in [60.5, 63]$  and  $b \in [11, 13]$
  - E.  $a \in [0, 1]$  and  $b \in [11, 13]$
- 

10. Choose the **smallest** set of Real numbers that the number below belongs to.

$$\sqrt{\frac{1760}{10}}$$

- A. Integer
  - B. Not a Real number
  - C. Irrational
  - D. Whole
  - E. Rational
-